Anti-ERK2 Antibody [C3B12-R]

HA601201

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 41 kDa
Clone number:	C3B12-R

Description: Mitogen-activated protein kinase (MAPK) signaling pathways involve two closely related MAP kinases, known as extracellular-signal-related kinase 1 (ERK 1, p44) and 2 (ERK 2, p42). Growth factors, steroid hormones, G protein-coupled receptor ligands, and neurotransmitters can initiate MAPK signaling pathways. Activation of ERK1 and ERK2 requires phosphorylation by upstream kinases such as MAP kinase kinase (MEK), MEK kinase and Raf-1. ERK1 and ERK2 phosphorylation can occur at specific tyrosine and threonine sites mapping within consensus motifs that include the Threonine-Glutamate-Tyrosine motif. ERK activation leads to dimerization with other ERKs and subsequent localization to the nucleus. Active ERK dimers phosphorylate serine and threonine residues on nuclear proteins and influence a host of responses that include proliferation, differentiation, transcription regulation and development. The human ERK2 gene maps to chromosome 22q11.21 and encodes a 360-amino acid protein.

Immunogen: Recombinant protein within human ERK2 aa 200-360.

Positive control: HeLa cell lysate, Jurkat cell lysate, A549 cell lysate, A431 cell lysate, HepG2 cell lysate, HEK-293 cell lysate, NIH/3T3 cell lysate, RAW264.7 cell lysate, C6 cell lysate, human brain tissue lysate, mouse brain tissue lysate, rat brain tissue lysate.

Subcellular location: Cytoplasm, cytoskeleton, spindle, Nucleus, microtubule organizing center, centrosome, Membrane, caveola, Cell junction, focal adhesion.

Database links: SwissProt: P28482 Human | P63085 Mouse | P63086 Rat

Recommended Dilutions:

WB	1:1,000-1:2,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

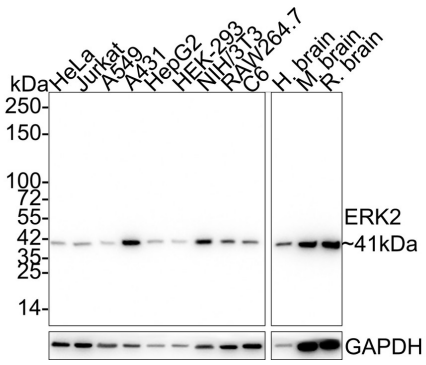

Fig1: Western blot analysis of ERK2 on different lysates with Mouse anti-ERK2 antibody (HA601201) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: Jurkat cell lysate (20 µg/Lane)
Lane 3: A549 cell lysate (20 µg/Lane)
Lane 4: A431 cell lysate (20 µg/Lane)
Lane 5: HepG2 cell lysate (20 µg/Lane)
Lane 6: HEK-293 cell lysate (20 µg/Lane)
Lane 7: NIH/3T3 cell lysate (20 µg/Lane)
Lane 8: RAW264.7 cell lysate (20 µg/Lane)
Lane 9: C6 cell lysate (20 µg/Lane)
Lane 10: Human brain tissue lysate (40 µg/Lane)
Lane 11: Mouse brain tissue lysate (40 µg/Lane)
Lane 12: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 41 kDa
Observed band size: 41 kDa

Exposure time: 43 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601201) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Alpaca Anti-Mouse IgG - HRP for IP Nano-Secondary Antibody (NBI02H) at 1/5,000 dilution was used for 1 hour at room temperature.

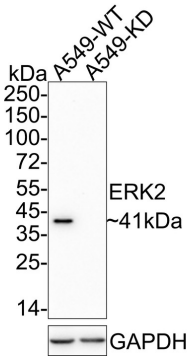

Fig2: Western blot analysis of ERK2 on different lysates with Mouse anti-ERK2 antibody (HA601201) at 1/2,000 dilution.

Lane 1: A549-si NT cell lysate (10 µg/Lane)
Lane 2: A549-si ERK2 cell lysate (10 µg/Lane)

Predicted band size: 41 kDa
Observed band size: 41 kDa

Exposure time: 1 minute; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601201) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Wang VY. et. al. Bcl3 Phosphorylation by Akt, Erk2, and IKK Is Required for Its Transcriptional Activity. Mol Cell. 2017 Aug 3;67(3):484-497.e5.
2. Schwebs DJ. et. al. Dictyostelium Erk2 is an atypical MAPK required for chemotaxis. Cell Signal. 2018 Jun;46:154-165.